

## ABSTRACT

Prophylactic treatment methods are disclosed. The methods can include contacting an object and/or an area of a subject with a metal-containing material to reduce the occurrence of a condition at the same area or a different area of the subject. The metal-containing material can be, for example, an antimicrobial material, an anti-biofilm metal-containing material, an antibacterial material, an anti-inflammatory material, an anti-fungal material, an anti-viral material, an anti-cancer material, a pro-apoptosis material, an anti-proliferative material, an MMP modulating material, an atomically disordered, crystalline material, and/or a nanocrystalline material. In certain embodiments, the metal-containing material is an atomically disordered, nanocrystalline silver-containing material.